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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/623,409	07/18/2003	Chuong Diep	EC-6458	5003

7590 10/01/2004
TAROLLI, SUNDHEIM, COVELL, & TUMMINO
Suite 1111
526 Superior Avenue,
Cleveland, OH 44114

EXAMINER

FISHMAN, MARINA

ART UNIT	PAPER NUMBER
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2832

DATE MAILED: 10/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/623,409	Applicant(s) DIEP, CHUONG	
	Examiner Marina Fishman	Art Unit 2832	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 August 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11,27 and 28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11,27,28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

General status

1. This is a First Action on the Merits. Claims 1 – 11, 27 and 28 are pending in the case and are being examined.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 - 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stevens [US 3,315,535] in view of Olson [US 4,001,526].

Stevens discloses an assembly [Figures 1 – 8] comprising:

- a housing [36], switch contacts [Column 1, lines 67 –73] operable between actuated and non-actuated conditions;
- a switch actuation mechanism [20], a push button [58];
- a force transmitting apparatus [54, 86, 96] extending between the push button and the switch actuation mechanism to transmit the force from the push button to the switch actuation mechanism;
- a cam follower [102], a cam block [86];

- a first actuator member [26], a second actuator member [24],
a spring [28] connected between the first actuator member
and the second actuator member.

Regarding Claims 2 and 3, Stevens discloses first and second actuator members [26, 24], are pivoted, [Figures 2 and 3; Column 2, line 15]. The second actuating member [24] is disclosed with a pin (not numbered), which is connected to the housing [Figure 1] and hence the second actuating member is provided with third and fourth bearing surfaces about a second axis (of the supporting pin, not numbered, Figure 3), similarly, since the pivoting action for the first actuating member, it would have been obvious to provide first and second bearing surfaces for the first actuating member and also provide a pin with first axis onto which the first and second bearing surfaces of the first actuating member can be supported so as to obtain the pivoting of the first actuating member.

Regarding Claims 5 and 6, Stevens [Figure 8] discloses a support pin [132] extending from a bottom wall of the casing. The cam follower has a base arm [80, 72'], a helical coil [130] and a follower arm [102'], which engages the cam surface [110, 114]. Also, the main section [74'] and follower section [102'] are perpendicular to each other. However, the end of the base section is not parallel to the end of the follower arm. Embodiment of Figure 7 discloses a portion of base section parallel to the end of follower section. Therefore, it would have been obvious matter of design choice to provide the end section of the base section parallel to end section of the follower arm.

Regarding Claim 1, Stevens discloses the instant claimed invention except for

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the cam block and the first and second force transmitting pins being formed as one piece. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make two parts into integral unit, since it has been held that forming in one piece an article which has formerly been formed in two pieces and put together involves only routine skill in the art. [Howard v. Detroit Stove Works, 150 U.S. 164 (1893).]

Regarding Claim 3, Stevens discloses the instant claimed invention except for the first and second actuator members [26, 24] being formed of first and second pieces of polymeric material. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use polymeric material for the first and second actuator members in order to make them corrosion resistant, since it has been held within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use [In re Leshin, 125 USPQ 416].

Regarding Claim 4, Stevens discloses the instant claimed invention except for a groove on force transmitting pin and flange on the push button. Olson [Figures 1 and 2] discloses a force-transmitting pin [36] with groove (not numbered) and body of the push button [38] with resilient projecting flanges (not numbered). It would have been obvious to one of ordinary skill in the art, at the time the invention was made to provide groove for pin [54] of Stevens and also provide resilient projecting flanges in the body of the push button as taught by Olson, so that the push button and the first pin can be removably connected.

3. Claims 7 – 11, 16, 17 and 26 rejected under 35 U.S.C. 103(a) as being unpatentable over Stevens [US 3,315,535] in view of Olson [US 4,001,526] as applied to claim 1 above, and further in view of Hart [US 5,659,162].

Regarding Claims 7-11, 27 and 28, Stevens and Olson disclose the instant claimed invention, however, both do not disclose a printed circuit connecting to a plurality of light sources. Hart discloses a plurality of light sources and a printed circuit connecting the light source to a plurality of switch terminals. It would have been obvious to one of ordinary skill in the art to provide a printed circuit to connect terminals of the switch to the plurality of light sources, as taught by Hart, so that the switch button is illuminated and signal is provided from the terminals to the light sources.

Regarding claims 8, 27 and 28, though Hart does not disclose the circuit board having an opening, providing opening for passing the pin, would be a an obvious matter of design choice. For Claim 9, the traces on the printed circuit are taken as components, alternatively the LED of Hart reference can be taken as circuit components. For claims 10 and 11, Hart discloses end portions of the circuit board connected to the switch contacts and the push buttons. Though the Hart reference does not disclose arm sections of the circuit board, it would have been a matter of design choice to provide arm sections running along sidewalls of the housing, so that the circuit board can be properly supported in the housing.

Response to Arguments

4. Applicant's arguments filed August 26, 2004 have been fully considered but they are not persuasive.

Applicant has argued that the prior art of Steven and Olson do not disclose the first and second force transmitting pins are integrally formed as one piece. Examiner would like to point out that making two parts into an integral unit is taught by the case law of Howard v. Detroit Stove Works, 150 U.S. 164 (1893), is considered requiring only routine skill in the art. In the same manner, Applicant has argued that the assembly of switch of Stevens would require the first and second pins to be made separate. This may be true, however, the claim is not directed to assembly of switch with first and second force transmitting pins. Also, after the assembly, the pins could be made integral by simply use of a bonding material. With respect to claim 2, Applicant has argued that the claim recites 'the first main section and first and second bearing sections are integrally formed as one piece.' Again, as stated before, making two pieces into one integral unit is considered within routine skill of a person in the art. With respect to the argument "actuating arm does not have cylindrical bearing surfaces" Examiner respectfully disagrees. The bearing surfaces of the pin are cylindrical.

The newly added claims 27 and 28 recite printed circuit board, and these limitations were already addressed.


Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marina Fishman whose telephone number is 571-272-1991. The examiner can normally be reached on 7-5 M-T.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin Enad can be reached on 571-272-1990. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Marina Fishman
September 22, 2004


LINCOLN DONOVAN
PRIMARY EXAMINER
GROUP 2100